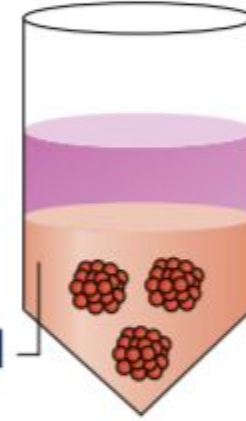
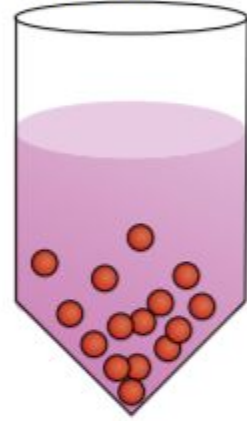


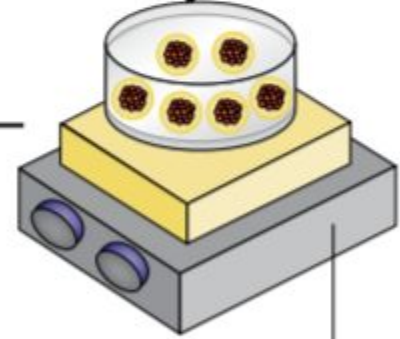
Aggregation



Matrigel

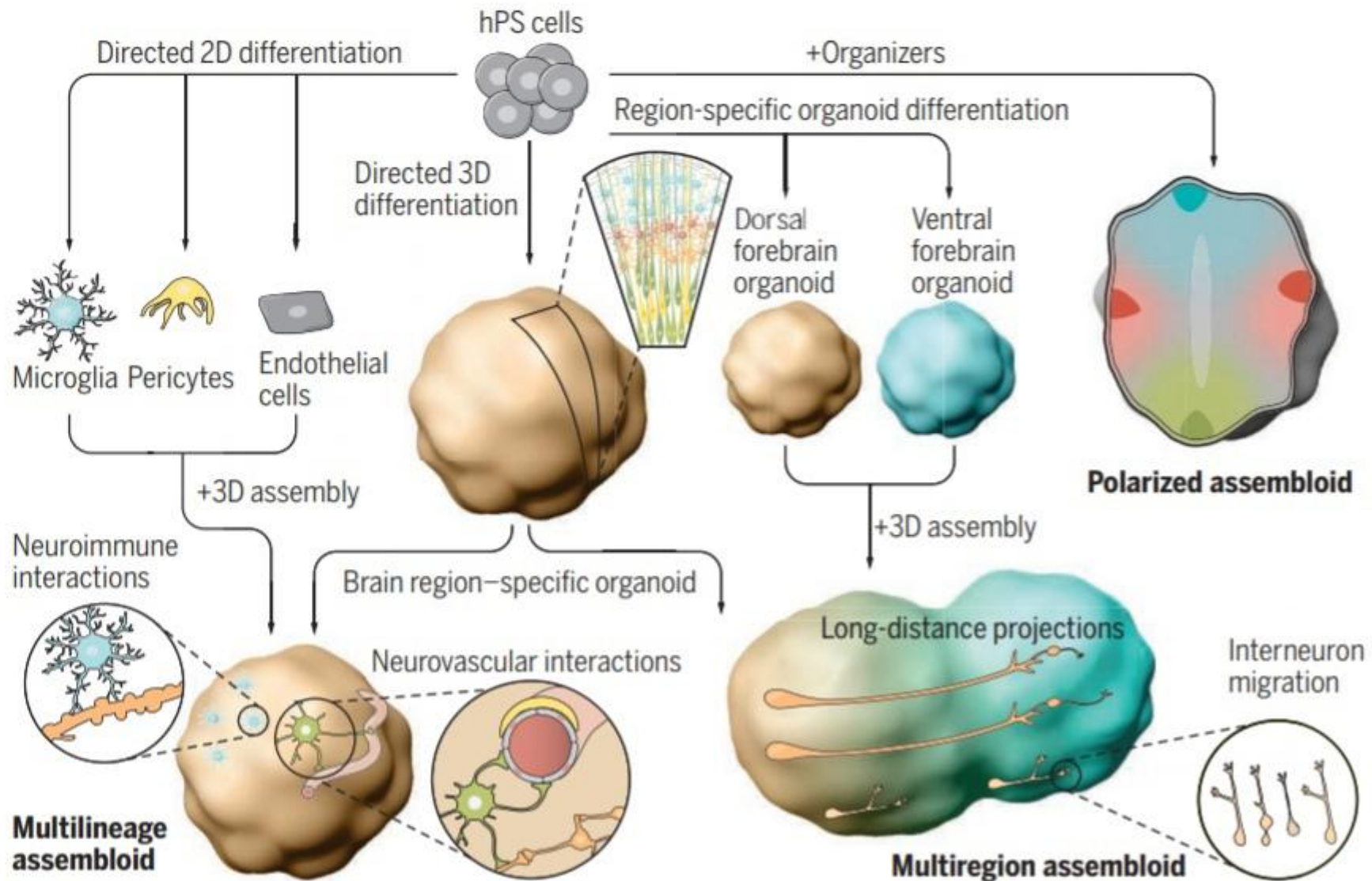


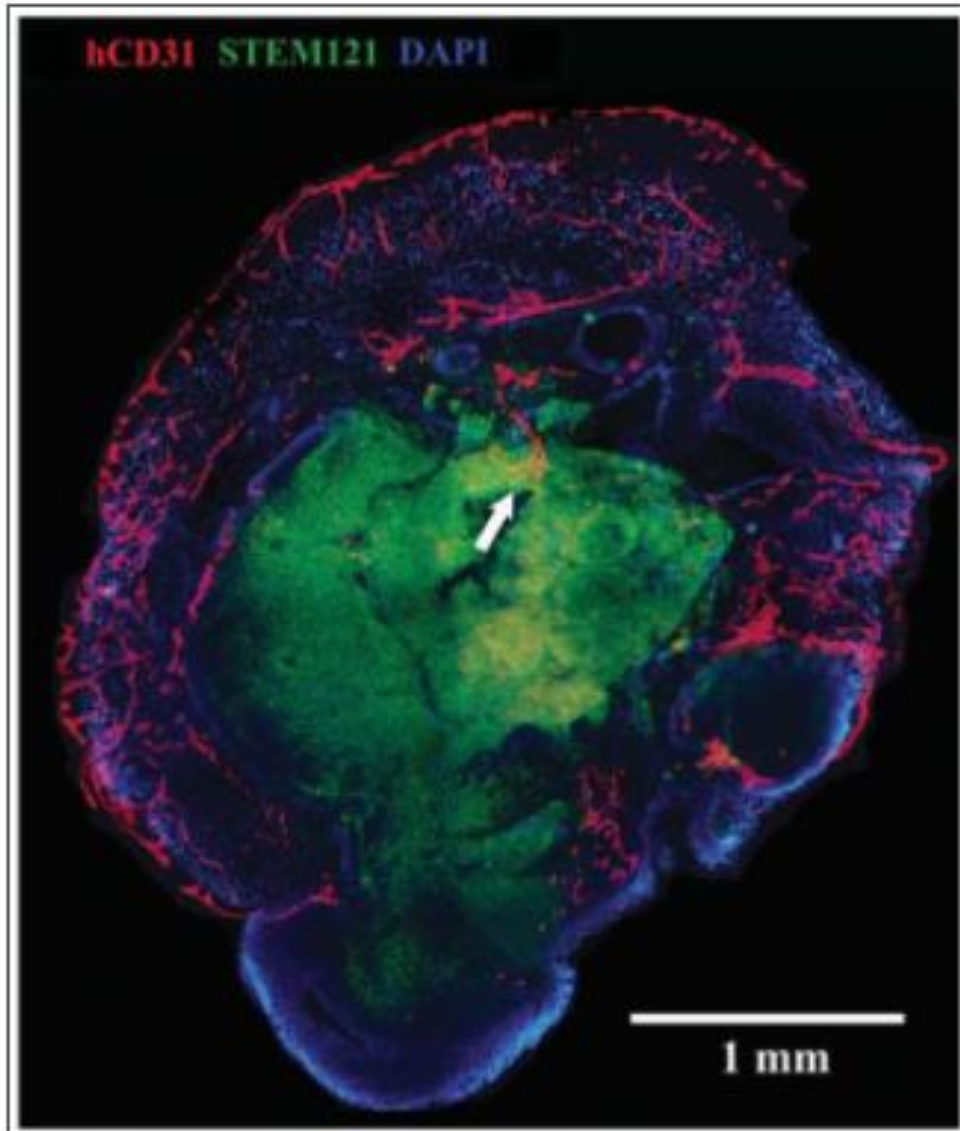
PD organoid



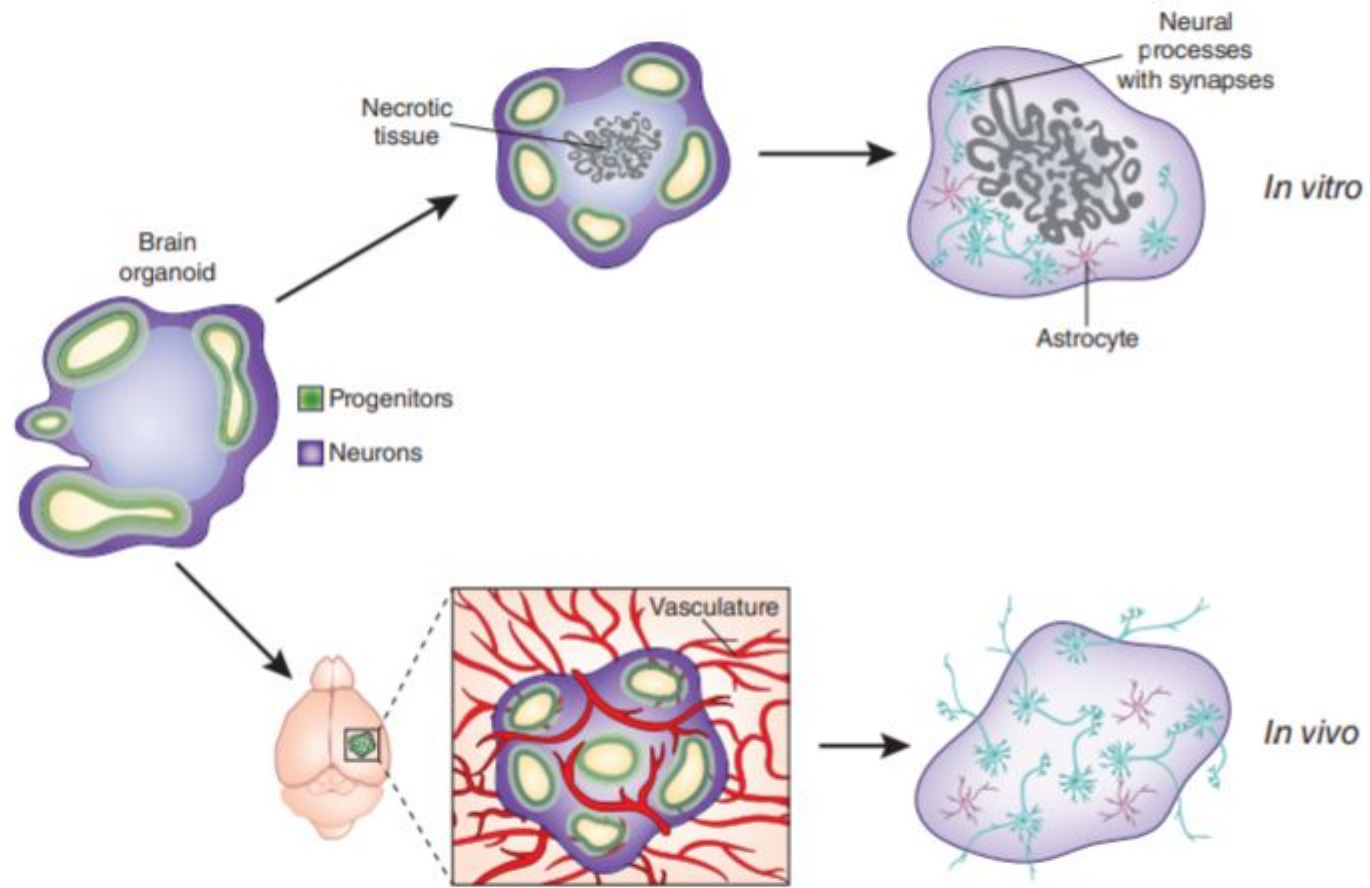
Orbital shaker

Tan H. et al, 2020

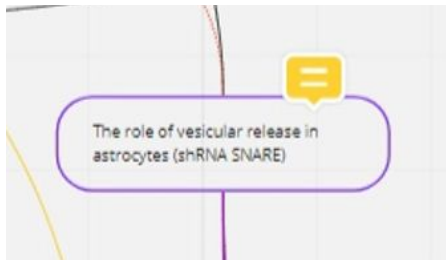
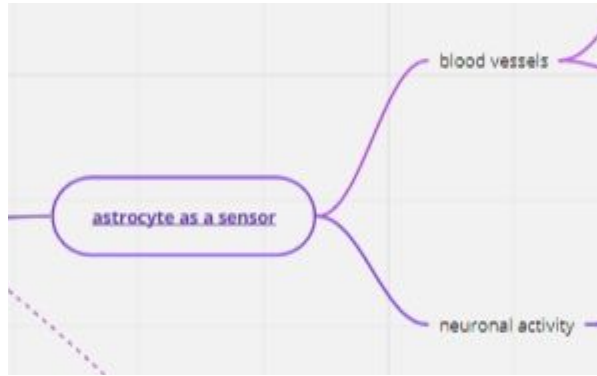


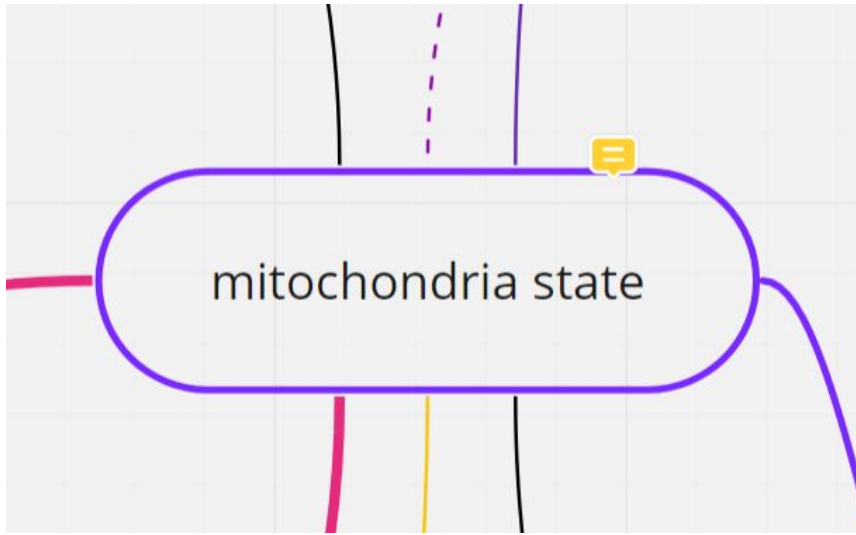


Missy T. Pham, 2018



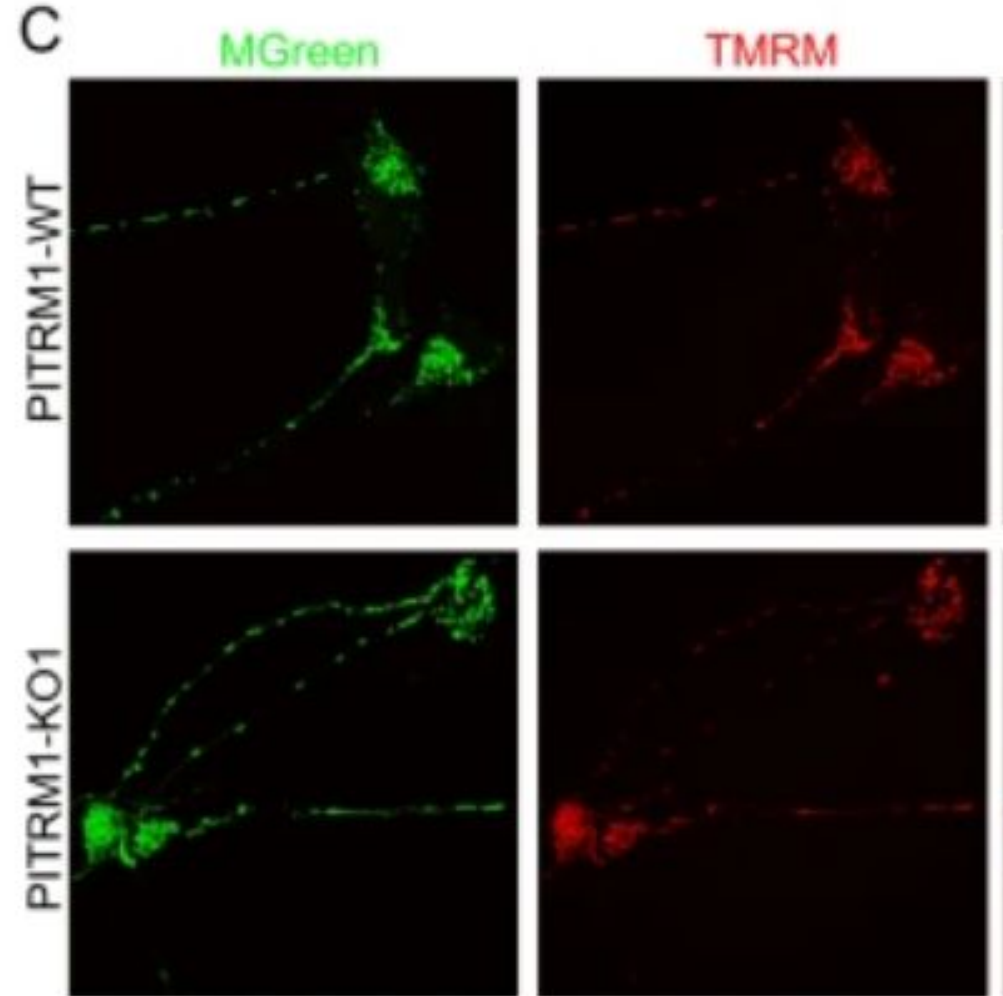
Lancaster M.A., 2018

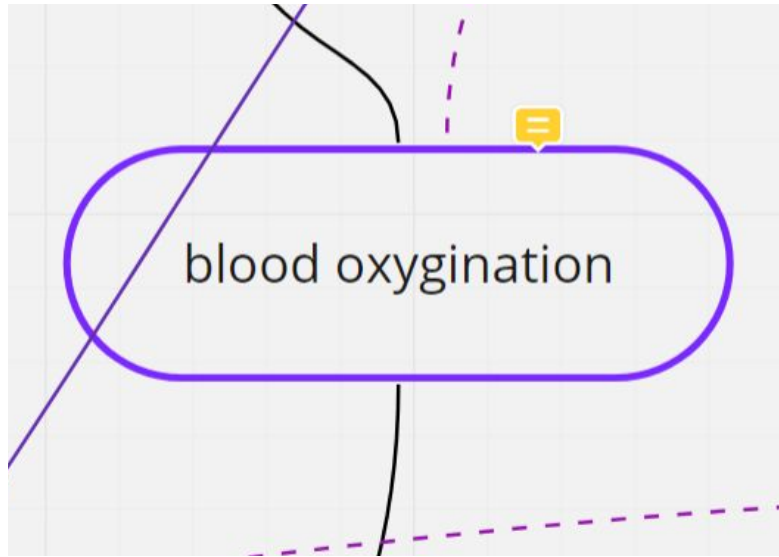




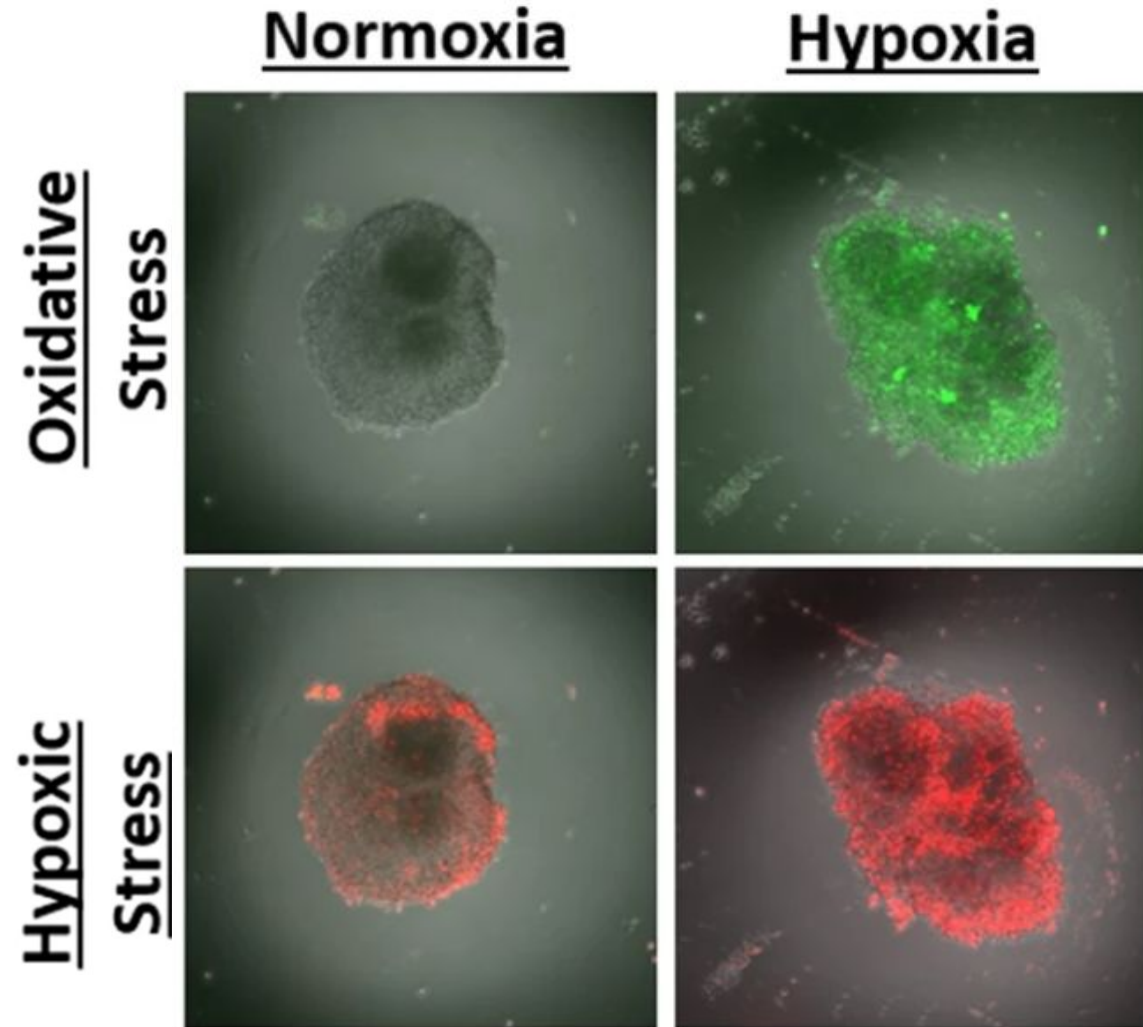
**Loss of function of the mitochondrial peptidase PITRM1 induces proteotoxic stress and Alzheimer's disease-like pathology in human cerebral organoids** (Pérez M.J. et al. 2020)

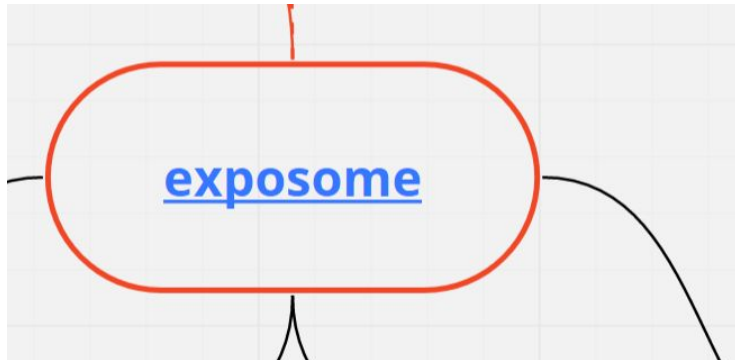
**Tools and approaches for analyzing the role of mitochondria in health, development and disease using human cerebral organoids** (Michał Liput et al, 2021)



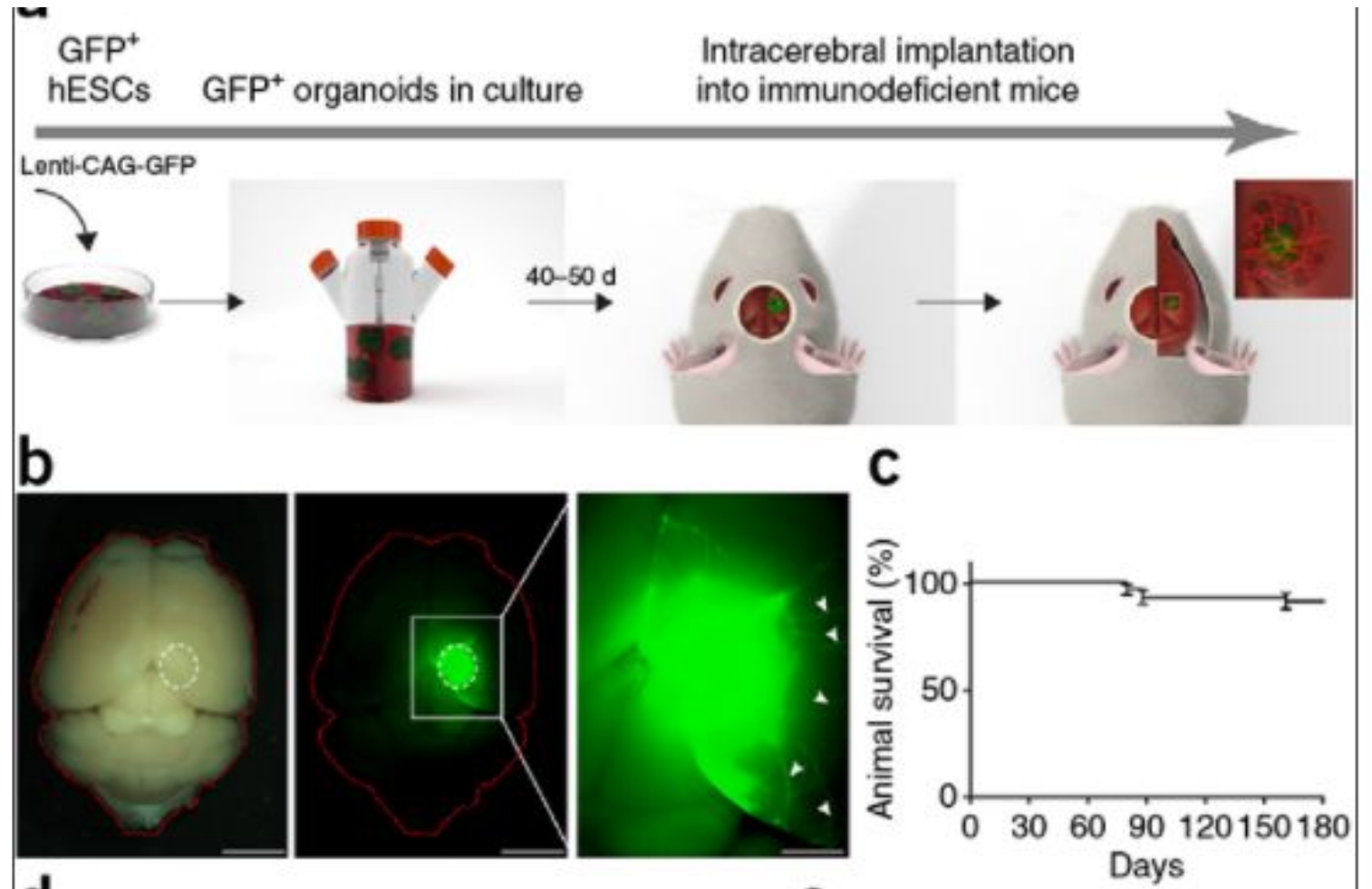


## Multicellular 3D Neurovascular Unit Model for Assessing Hypoxia and Neuroinflammation Induced Blood-Brain Barrier Dysfunction (Nzou G. et al., 2020)



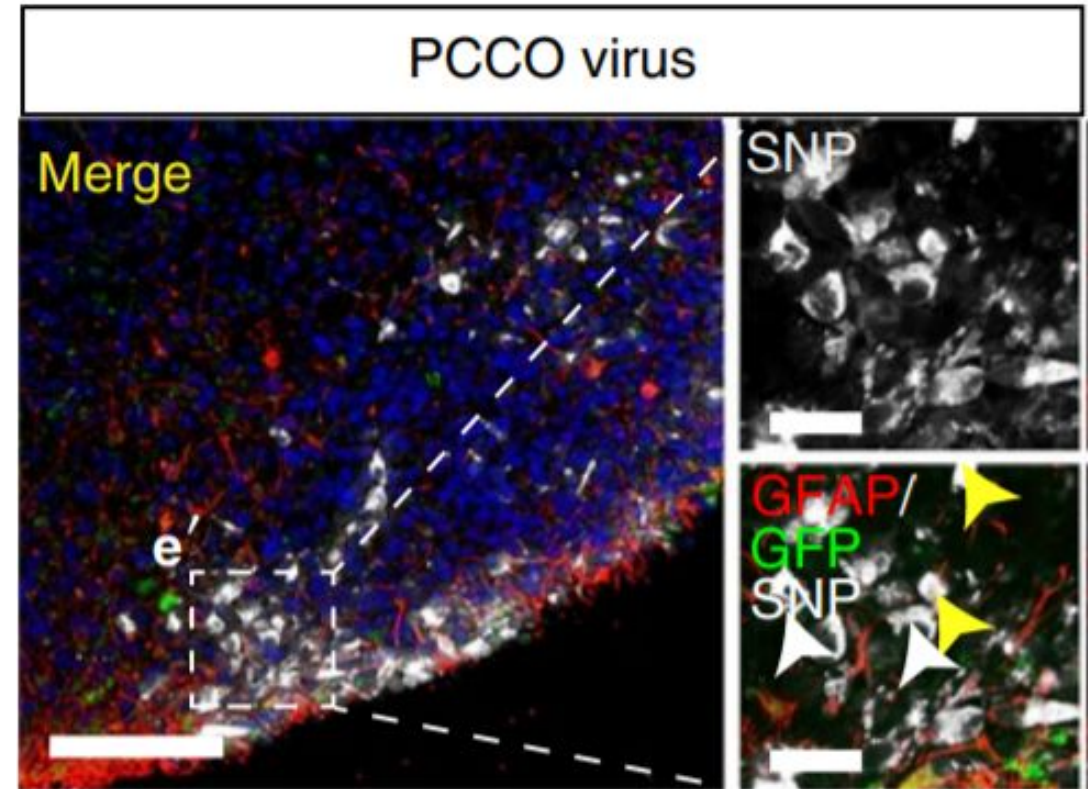
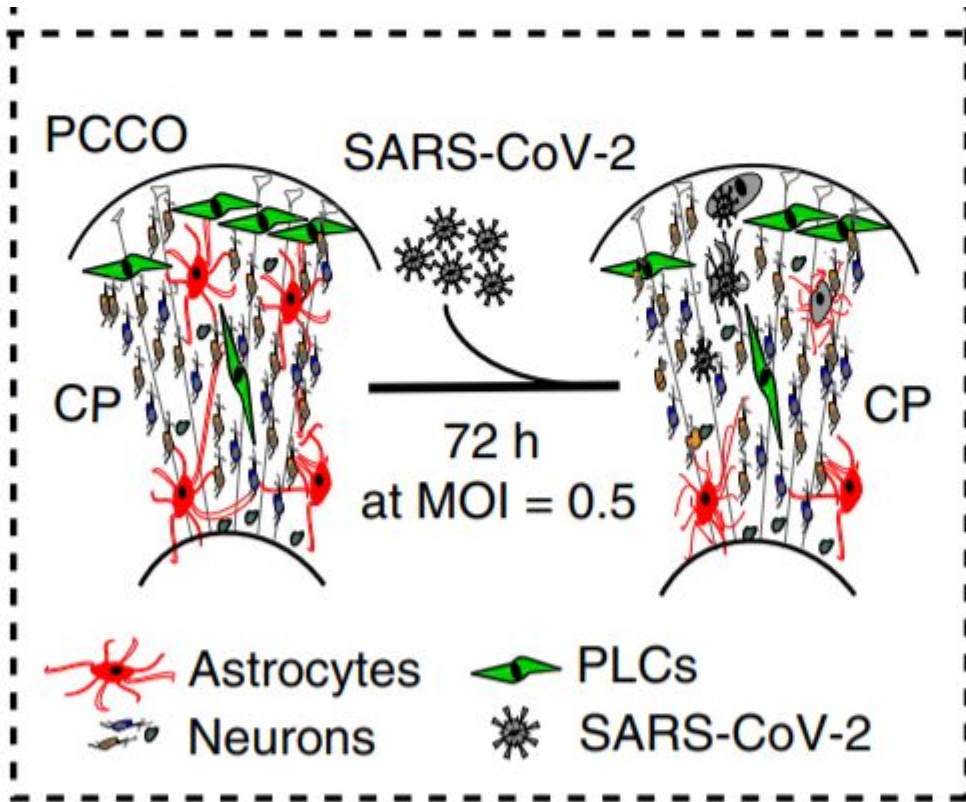


An *in vivo* model of functional and vascularized human brain organoids (Mansour, A. A. et al., 2018)



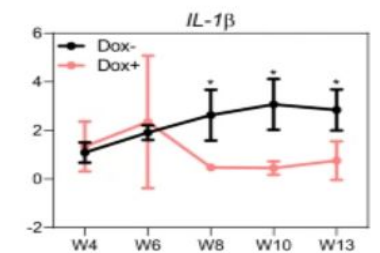
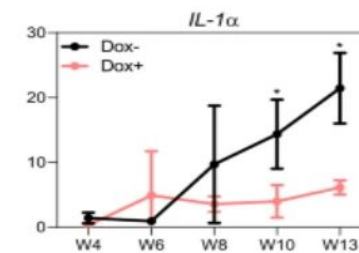
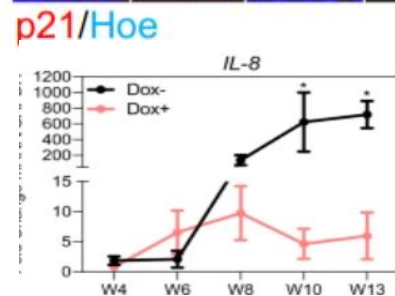
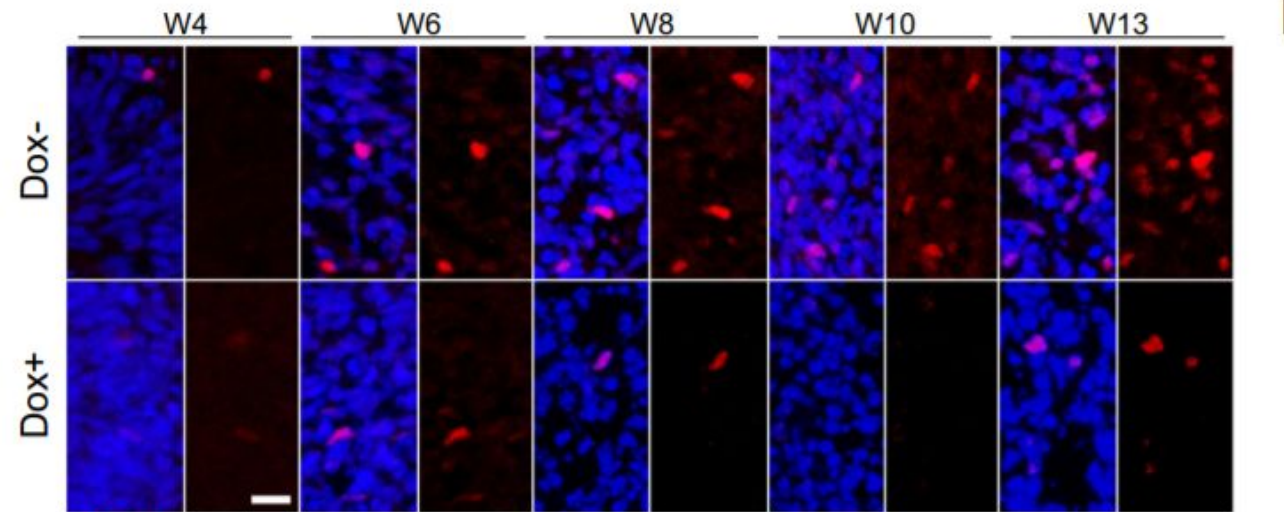
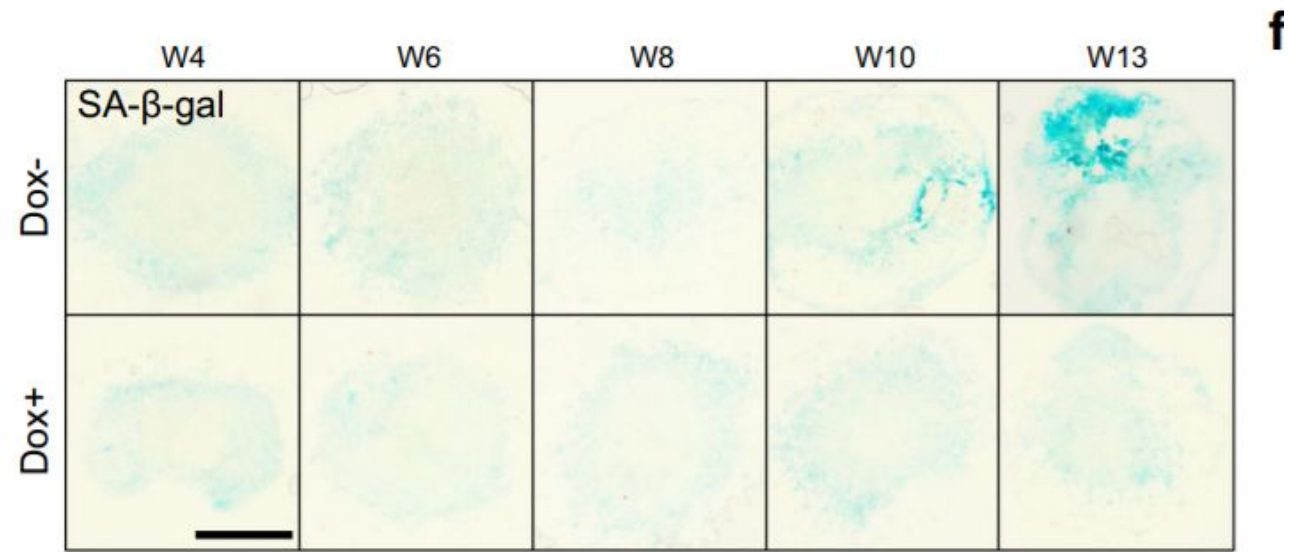


A human three-dimensional neural-perivascular 'assembloid' promotes astrocytic development and enables modeling of SARS-CoV-2 neuropathology (Wang L. et al, 2021)





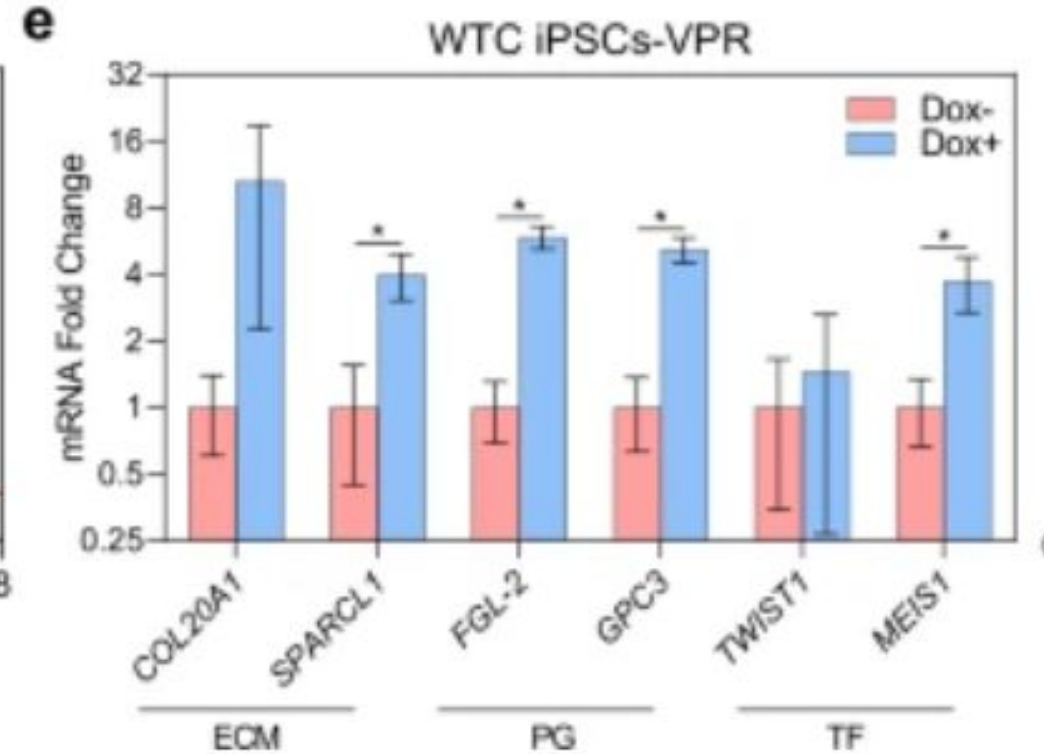
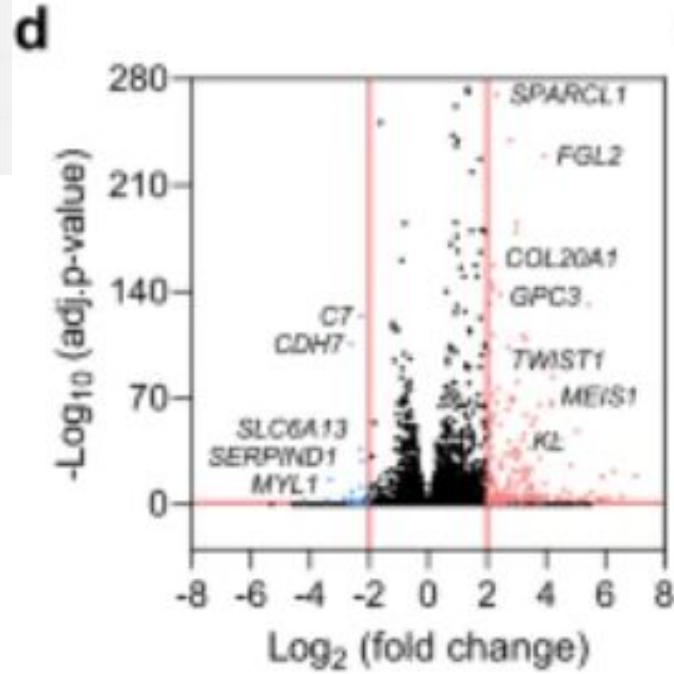
**Klotho inhibits neuronal senescence  
in human brain organoids  
(Shaker M.R., 2021)**



Extracellular matrix  
(Yulia Dembitskaya)

## Klotho inhibits neuronal senescence in human brain organoids (Shaker M.R., 2021)

**ECM ?**  
**PNNs ?**



iPSC and organoids  
**(Pavel Denisov)**

Human tissue project



Alzheimer's  
Disease model

